

# WRAP-AND-FILL OVAL CONFIGURATION METALIZED POLYESTER FILM CAPACITORS



## FEATURES

- Economical
- Small size
- Rugged construction
- Space saving oval configuration

### MAJOR APPLICATIONS:

Blocking, filtering, bypass, timing, coupling decoupling, pulse operations, power supply, etc.

## PHYSICAL CHARACTERISTICS

### CONSTRUCTION:

Non-inductive wound metalized polyester.

### CASE:

Flame retardant tape wrap and epoxy endfill.

### LEAD MATERIAL:

Solder coated solid wire.

### LEAD WIRE SIZES:

Case Dia.	Lead AWG
≤ 0.240	No. 22
> 0.240	No. 20

### LEAD STRENGTH:

Capable of withstanding a five pound pull force on lead axis.

### MARKING:

Dearborn trademark, type or catalog number, capacitance, tolerance and voltage.

## ELECTRICAL SPECIFICATIONS

**CAPACITANCE RANGE:** 0.01  $\mu$ F to 15.0  $\mu$ F

### VOLTAGE RATING:

- 63 VDC to 630 VDC
- 40 VRMS to 220 VRMS

**CAPACITANCE TOLERANCE:**  $\pm 20\%$ ,  $\pm 10\%$ ,  $\pm 5\%$

**OPERATING TEMPERATURE:**  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$

**VOLTAGE DERATING:** At  $+125^{\circ}\text{C}$ , 50% of the  $85^{\circ}\text{C}$  rating

### DISSIPATION FACTOR:

- 0.8% maximum  $\leq 1.0 \mu\text{F}$
- 1.0% maximum  $> 1.0 \mu\text{F}$

**DC VOLTAGE TEST:** 200% of rated voltage for 2 minutes

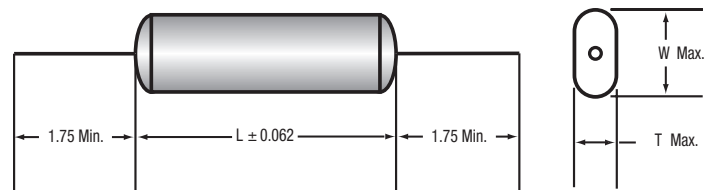
### INSULATION RESISTANCE:

- At  $+25^{\circ}\text{C}$ , 25,000 Megaohm-Microfarads, need not exceed 50,000 Megaohms
- At  $+85^{\circ}\text{C}$ , 1,000 Megaohm-Microfarads, need not exceed 2,500 Megaohms

## MAXIMUM PULSE RISE TIME

Capacitor Length (inch)	Rise Time $dv/dt$ (V / $\mu$ s)				
	63 VDC / 40 VAC	100 VDC / 63 VAC	250 VDC / 160 VAC	400 VDC / 200 VAC	630 VDC / 220 VAC
0.625	46	54	75	100	250
0.750	28	34	48	75	130
1.000	16	19	27	45	75
1.250	12	13	19	30	45
1.500	9	10	15	-	37
1.750	9	9	12	19	30
2.000	-	-	-	-	25
2.250	-	7	9	13	-

## DIMENSIONS (in inches)



\*Leads to be within  $\pm 0.062$ " (1.57 mm) of the center line at egress, but not less than 0.031" for the edge.

# WRAP-AND-FILL OVAL CONFIGURATION METALIZED POLYESTER FILM CAPACITORS

TYPE 431P

## STANDARD RATINGS

Capacitance		Voltage Code 063 63 VDC / 40 VAC*			Voltage Code 100 100 VDC / 63 VAC*			Voltage Code 250 250 VDC / 160 VAC*			Voltage Code 400 400 VDC / 200 VAC*			Voltage Code 630 630 VDC / 220 VAC*		
µF	Code	T	W	L	T	W	L	T	W	L	T	W	L	T	W	L
0.010	103	-	-	-	-	-	-	-	-	-	-	-	-	0.171	0.278	0.625
0.015	153	-	-	-	-	-	-	-	-	-	-	-	-	0.199	0.331	0.625
0.022	223	-	-	-	-	-	-	-	-	-	-	-	-	0.189	0.296	0.750
0.033	333	-	-	-	-	-	-	-	-	-	0.173	0.280	0.625	0.221	0.353	0.750
0.047	473	-	-	-	-	-	-	-	-	-	0.206	0.313	0.625	0.191	0.323	1.000
0.068	683	-	-	-	-	-	-	-	-	-	0.198	0.305	0.750	0.231	0.363	1.000
0.10	104	-	-	-	-	-	-	0.191	0.298	0.625	0.230	0.362	0.750	0.272	0.429	1.000
0.15	154	-	-	-	-	-	-	0.186	0.293	0.750	0.214	0.395	1.000	0.275	0.432	1.250
0.22	224	-	-	-	0.200	0.307	0.625	0.215	0.347	0.750	0.251	0.407	1.000	0.292	0.448	1.500
0.33	334	0.210	0.317	0.625	0.196	0.303	0.750	0.200	0.332	1.000	0.258	0.415	1.250	0.302	0.507	1.750
0.47	474	0.191	0.323	0.750	0.178	0.285	1.000	0.231	0.387	1.000	0.272	0.428	1.500	0.348	0.603	1.750
0.68	684	0.231	0.363	0.750	0.204	0.336	1.000	0.282	0.438	1.000	0.297	0.453	1.750	0.432	0.687	1.750
1.00	105	0.212	0.344	1.000	0.208	0.339	1.250	0.287	0.443	1.250	0.344	0.550	1.750	0.488	0.742	2.000
1.50	155	0.252	0.408	1.000	0.246	0.403	1.250	0.336	0.541	1.250	0.411	0.665	1.750	-	-	-
2.00	205	0.274	0.480	1.000	0.288	0.444	1.250	0.341	0.547	1.500	0.486	0.740	1.750	-	-	-
2.50	255	0.311	0.517	1.000	0.304	0.509	1.250	0.366	0.628	1.500	0.507	0.860	1.750	-	-	-
3.00	305	0.283	0.488	1.250	0.337	0.542	1.250	0.407	0.662	1.500	0.467	0.820	2.250	-	-	-
4.00	405	0.307	0.513	1.250	0.345	0.600	1.500	0.427	0.682	1.750	0.557	0.910	2.250	-	-	-
5.00	505	0.349	0.554	1.500	0.393	0.648	1.500	0.486	0.741	1.750	-	-	-	-	-	-
6.00	605	0.365	0.620	1.500	0.437	0.692	1.500	0.496	0.848	1.750	-	-	-	-	-	-
7.00	705	0.400	0.654	1.500	0.479	0.733	1.500	0.544	0.897	1.750	-	-	-	-	-	-
10.00	106	0.492	0.747	1.500	0.478	0.831	1.750	0.558	0.910	2.250	-	-	-	-	-	-
12.00	126	0.496	0.740	1.750	0.483	0.738	2.250	0.622	0.975	2.250	-	-	-	-	-	-
15.00	156	0.507	0.860	1.750	0.505	0.857	2.250	-	-	-	-	-	-	-	-	-

Additional capacitance values, voltages, and tolerances are available upon request.

\*AC voltage rating is at 60Hz 1.4 x VRMS + VDC should not exceed the rated VDC.